General

Guideline Title

Physical health of people in prison.

Bibliographic Source(s)

National Guideline Centre. Physical health of people in prison. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov 2. 36 p. (NICE guideline; no. 57).

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

Note from the National Guideline Clearinghouse (NGC): The guideline was developed by the National Clinical Guideline Centre (NCGC) on behalf of the National Institute for Health and Care Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance and related appendices.

The wording used in the recommendations in this guideline (for example, words such as 'offer' and 'consider') denotes the certainty with which the recommendation is made (the strength of the recommendation) and is defined at the end of the "Major Recommendations" field.

Assessing Health

First-Stage Health Assessment at Reception into Prison

At first reception into prison, a healthcare professional (or trained healthcare assistant under the supervision of a registered nurse) should carry out a health assessment for every person. Do this before the person is allocated to their cell. As part of the assessment, identify:

- Any issues that may affect the person's immediate health and safety before the second-stage health assessment
- Priority health needs to be addressed at the next clinical opportunity

Ensure continuity of care for people transferring from one custodial setting to another (including court, the receiving prison or during escort periods) by, for example:

- Accessing relevant information from the patient clinical record, prisoner escort record and cell sharing risk assessment
- Checking medicines and any outstanding medical appointments

Take into account any communication needs or difficulties the person has (including reading and writing ability), and follow the principles in NICE's guideline on patient experience in adult National Health Service (NHS) services .

The first-stage health assessment should include the questions and actions shown in Table 1 in the original guideline document. It should cover:

- Physical health
- Alcohol use
- Substance misuse
- Mental health
- Self-harm and suicide risk

Following the First-Stage Health Assessment

Give the person advice about how to contact prison health services and book general practitioner (GP) appointments in the future.

Ask the person for consent to transfer their medical records from their GP to the prison healthcare service (see recommendations in the "On Entry into Prison" section below for more information about transfer of medical records).

Enter in the person's medical record:

- All answers to the reception health assessment questions
- Health-related observations, including those about behaviour and mental state (including eye contact, body language, rapid, slow or strange speech, poor hygiene, strange thoughts)
- Details of any action taken

Carry out a medicines reconciliation (in line with the NGC summary of the NICE guideline Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes) before the second-stage health assessment. See also the "Access to Medicines" and "Continuity of Medicines" sections for recommendations on risk assessments for in-possession medicines and ensuring continuity of medicine.

Tuberculosis Screening within 48 Hours

The recommendations in this section have been adapted from the NGC summary of the NICE guideline Tuberculosis (TB).

Healthcare professionals in prisons should ensure people coming into prison are screened for TB within 48 hours of arrival.

Report all suspected and confirmed TB cases to the local multidisciplinary TB team within 1 working day.

If a case of TB is confirmed:

- Arrange for the local multidisciplinary TB team to visit within 5 working days.
- Contact the local Public Health England unit and multidisciplinary TB team to arrange a contact investigations exercise. They should also consider using mobile X-ray to check for further cases.

Put contingency, liaison and handover plans in place to ensure continuity of care before a person being treated for TB is transferred between prisons or released. Any other agencies working with the person should also be involved in this planning.

Second-Stage Health Assessment within 7 Days

A healthcare professional (for example, a registered general nurse) should carry out a second-stage health assessment for every person in prison. Do this within 7 days of the first-stage health assessment, and include as a minimum:

- Reviewing the actions and outcomes from the first-stage health assessment
- Asking the person about:
    - Any previous misuse of alcohol, use of drugs or improper use of prescription medicine
    - If they have ever suffered a head injury or lost consciousness, and if so:
        - How many times this has happened
        - Whether they have ever been unconscious for more than 20 minutes
        - Whether they have any problems with their memory or concentration
    - Smoking history
    - The date of their last sexual health screen
    - Any history of serious illness in their family (for example, heart disease, diabetes, epilepsy, cancer or chronic conditions)

    - Their expected release date, and if less than 1 month plan a pre-release health assessment: see the "Before Release from Prison" section.
    - Whether they have ever had a screening test (for example, a cervical screening test or mammogram)
    - Whether they have, or have had, any gynaecological problems
- Measuring and recording the person's height, weight, pulse, blood pressure and temperature, and carrying out a urinalysis

Review the person's first- and second-stage health assessment records, medical history, GP and vaccination records and:

- Refer the person to the GP or a relevant clinic if further assessment is needed. See, for example, NICE's guidelines on cardiovascular disease (recommendations on identifying people for full formal risk assessment; see the NGC summary of the NICE guideline Lipid modification: cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease) or type 2 diabetes (the recommendation on risk assessment; see the NGC summary of the NICE guideline Type 2 diabetes in adults: management).
- Arrange a follow-up appointment if needed.

Consider using the Correctional Mental Health Screen for Men (CMHS-M) or Women (CMHS-W) to identify possible mental health problems if:

- The person's history, presentation or behaviour suggests they may have a mental health problem
- The person's responses to the first-stage health assessment suggest they may have a mental health problem
- The person has a chronic physical health problem with associated functional impairment
- Concerns have been raised by other agencies about the person's abilities to participate in the criminal justice process

When using the CMHS-M or CMHS-W with a transgender person, use the measure that is in line with their preferred gender identity.

If there is other evidence supporting the likelihood of mental health problems, or a man scores 6 or more on the CMHS-M, or a woman scores 4 or more on the CMHS-W:

- A practitioner who is trained to perform an assessment of mental health problems should conduct further assessment or
- A practitioner who is not trained to perform an assessment of mental health problems should refer the person to an appropriately trained professional for further assessment

Offer people tailored health advice based on their responses to the assessment questions. This should be in a variety of formats (including face-to-face). It should include advice on:

- Alcohol (see NICE's guideline on alcohol-use disorders)
- Substance misuse (see NICE's guideline on drug misuse in over 16s)
- Exercise (see the "Exercise" section below)
- Diet (see the "Diet" section below)
- Stopping smoking (see the "Stopping Smoking" section below)
- Sexual health (see the "Sexual Health" section below)

Offer the person advice, with supporting literature if appropriate, on:

- How to contact prison health services and book GP appointments or other clinics, for example, dental, optician, chiropodist, substance misuse and recovery services
- Where to find health information that is accessible and understandable
- How to attend or get a referral to attend any health-promoting activities in the future (see the "Promoting Health and Wellbeing" section below)
- Medicines adherence (see the "Access to Medicines" section below)

Enter in the person's medical record:

- All answers to the second-stage health assessment questions
- Health-related observations
- Details of any action taken

Plan a follow-up healthcare review at a suitable time based on clinical judgement, taking into account the age of the person and length of their sentence. For people who may be in prison for less than 1 month, see "Before Release from Prison" section below.

Health Checks and Screening

Ensure that there is a system and processes in place to carry out and refer to other assessments in line with recommendations in NICE guidelines.

Hepatitis B and C

The recommendations in this section have been adapted from the NICE guideline on hepatitis B and C testing.

Prison healthcare services (working with the NHS lead for hepatitis) should ensure that:

- All people are offered a hepatitis B vaccination when entering prison (for the vaccination schedule, refer to the Green Book)
- All people are offered access to confidential testing for hepatitis B and C when entering prison and during their detention
- People who test for hepatitis B or C receive the results of the test, regardless of their location, when they become available
- Results from hepatitis B and C testing are provided to the person's community-based GP, if consent is given

Human Immunodeficiency Virus (HIV)

The recommendations in this section have been adapted from the NICE guideline on HIV testing.

Offer all people HIV testing when entering prison.

Primary care providers should ensure annual HIV testing is part of the integrated healthcare offered to men who are known to have sex with men.

Provide information on HIV testing and discuss why it is recommended (including to those who indicate that they may wish to decline the test).

Conduct post-test discussions, including giving positive test results and delivering post-test and general health promotion interventions.

Recognise illnesses that may signify primary HIV infection and clinical indicator diseases that often coexist with HIV.

Sexually Transmitted Infections (STIs)

The recommendations in this section have been adapted from the NICE guideline on sexually transmitted infections.

Identify people at high risk of STIs using their sexual history. Opportunities for risk assessment may arise during consultations on contraception, pregnancy or abortion, and when carrying out a cervical smear test or offering an STI test. Risk assessment could also be carried out during routine care or when a new patient registers.

Have structured, one-to-one discussions with people at high risk of STIs (if trained in sexual health), or arrange for these discussions to take place with a trained practitioner.

Other Health Checks and Screening

Offer people equivalent health checks to those offered in the community, for example:

- The NHS health check programme
- Learning disabilities annual health check
- Relevant NHS screening programmes, such as those for abdominal aortic aneurysm and bowel, breast and cervical cancer

Communication and Coordination

Ensure that the different teams (including prison staff) that manage a person's care in prison communicate with one another to coordinate care.

Share information with other health and social care staff, offender supervisors and probation providers who are involved in the person's care in prison if necessary for the person's care.

Ensure that people with complex health and social care needs have a lead care coordinator responsible for managing their care. Ensure that the person and all healthcare and prison staff know who this is.

Share relevant information about people with complex needs with prison staff using prison record systems in line with legislation and national guidance. This should include information about any high-level risks, such as:

- Risk of self-harm

- Risk to others
- Communicable diseases
- Epilepsy
- Diabetes
- Allergies
- Deteriorating health conditions
- Learning disabilities

Review people in prison with complex health and social care needs. Ensure that if a person is supported by a multidisciplinary team, the teams meet regularly to plan and coordinate ongoing management. These should be facilitated by primary care.

Document all health and social care patient interactions and any information related to health and social care in the person's primary care patient record.

Promoting Health and Wellbeing

General Health Advice

Consider using peer support and mentoring to help promote a healthy lifestyle while in prison.

Offer people in prison tailored health information in a variety of formats, including face-to-face. Include advice about:

- Exercise
- Diet
- Stopping smoking
- Sexual health
- Personal hygiene, including oral hygiene

Exercise

Encourage people to be physically active. Offer them information about:

- The benefits of exercise
- What exercise facilities are provided, where they are and how they can use them, for example:
  - Going to the gym
  - Using the exercise yard
- Exercises that can be done in the cell

Offer people information and advice in line with recommendations in the NICE guidelines on:

- Physical activity: brief advice for adults in primary care
- Physical activity: exercise referral schemes
- Preventing excess weight gain (see the NGC summary of the NICE guideline Maintaining a healthy weight and preventing excess weight gain among adults and children)
- Obesity: identification, assessment and management (see the "Physical Activity" section in the NGC summary of the NICE guideline Obesity: identification, assessment and management of overweight and obesity in children, young people and adults)

Diet

Offer people information about:

- The benefits of a healthy diet
- Healthier food options available in the prison

See "Continuity of Healthcare" section on dietary advice in NGC summary of NICE's guideline Obesity: identification, assessment and management of overweight and obesity in children, young people and adults.

Stopping Smoking

Offer people in prison information about:

- The risks of smoking
- Support available to stop as part of smoking cessation services (for example, nicotine patches and motivational support)

See the NICE pathway on smoking.

Sexual Health

Offer people in prison information about sexually transmitted infections and available sexual health services.

Ensure that people in prison have discreet access to condoms, dental dams and water-based lubricants without the need to ask for them.

Managing Medicines

Access to Medicines

Carry out an individual risk assessment to determine if the person can hold their medicines in-possession. Allow people in prison to hold all medicine in-possession unless the person does not pass the risk assessment.

Directly observe the administration of all schedule 2 and 3 medicines (also see the NGC summary of the NICE guideline Controlled drugs: safe use and management) and medicines for tuberculosis (see the NGC summary of the NICE guideline Tuberculosis).

Directly observe the administration of any medicine that is not in-possession.

Work with prison staff to ensure a system is in place to:

- Supervise the administering of medicines not held in-possession to maximise adherence
- Allow timings of medicines doses to align with the prescribed dose regime
- Reduce diversion
- Protect confidentiality

See the section on supporting adherence in NICE's guideline on medicines adherence.

Review and (if necessary) repeat a person's risk assessment for in-possession medicine if the person's circumstances change. Involve a multidisciplinary team if needed, including prison staff and the person. Examples of when the risk assessment should be repeated include:

- If carrying out a medicines review
- If a person is considered able to manage their own medicines after a period of having medicines not in-possession
- If there is a medicine safety incident, including evidence of self-harm
- If someone has raised security concerns (for example, about bullying, diversion or hoarding)
- If the person has not been taking their prescribed medicines
- If there is concern about the person's ability to self-medicate
- When following the Assessment Care in Custody and Teamwork care planning approach
- If the person is transferred to or from a segregation unit

Consider providing storage for in-possession medicine in prison cells, for example, a lockable cupboard.

Give people in prison information and education about medicines adherence (see the section on patient involvement in decisions about medicines in NICE's guideline on medicines adherence).

Monitoring Chronic Conditions

Monitor people with chronic conditions in accordance with the following the NGC summaries of the NICE guidelines:

- Chronic kidney disease. Early identification and management of chronic kidney disease in primary and secondary care
- The epilepsies: the diagnosis and management of the epilepsies in adults and children in primary and secondary care
- MI - secondary prevention. Secondary prevention in primary and secondary care for patients following myocardial infarction
- Type 1 diabetes in adults: diagnosis and management and Type 2 diabetes in adults: management

See also the following NICE guidelines:

- Chronic heart failure

- Chronic obstructive pulmonary disease
- Hypertension
- See also the NICE quality standard on asthma

Monitor people with chronic conditions that need specialist management in line with NICE guidelines (for example, see the NGC summaries of the NICE guidelines Hepatitis B (chronic). Diagnosis and management of chronic hepatitis B in children, young people and adults and Colorectal cancer. The diagnosis and management of colorectal cancer).

Consider more frequent monitoring for older people and people with chronic conditions (such as diabetes) who are serving longer prison sentences.

Managing Deteriorating Health and Health Emergencies

Ensure a local protocol is available for responding to and managing situations in which a person's health quickly deteriorates, or in a health emergency. This could include, for example:

- Essential training for front-line prison staff, including the first person likely to be on the scene in an emergency
- Processes to enable healthcare staff to reach a person in prison quickly, such as how to gain access to their cell
- Processes to ensure a person can be quickly seen by a healthcare professional if their health deteriorates quickly
- Availability of emergency equipment, such as emergency grab bags
- Recording the actions and observations taken by prison and healthcare staff when assessing people with rapidly deteriorating health or in an emergency situation, such as:
    - Updating a person's care plan or
    - Recommendations for immediate follow-up
- A clear care plan for supporting people with rapidly deteriorating health
- Guidance on sharing information between prison staff and healthcare staff, such as details on standardised clinical handovers and follow-up

Ensure prison and healthcare staff are made aware of people who have underlying chronic conditions and allergies:

- If the person agrees (in line with the local information-sharing policies)
- In emergencies, in line with the duty of healthcare staff to share relevant confidential patient data

Continuity of Healthcare

On Entry into Prison

Arrange for the person's medical records to be transferred from primary and secondary care to the prison healthcare team on the person's entry to prison (see the "Following the First-Stage Health Assessment" section above).

Primary and secondary care services should provide information from the person's medical records to the prison healthcare team that is:

- Relevant
- In the person's best interests

Transit between Custodial Settings

Ensure continuity of care between custodial settings, including court, the receiving prison or during escort periods by, for example:

- Providing access to relevant information from the patient record
- Providing any medicines (including controlled drugs) (see also recommendations in the section on "Continuity of Medicines" below)
- Issuing an FP10 prescription (Note: People who are released from prison unexpectedly can take an FP10 prescription form to a community pharmacy to receive their medicines free of charge until they can arrange to see their GP or register with a new GP)

Before Release from Prison

Carry out a pre-release health assessment for people with complex needs. This should be led by primary healthcare and involve multidisciplinary team members and the person. It should take place at least 1 month before the date the person is expected to be released.

For people who may be in prison for less than 1 month, plan pre-release health assessments during the second-stage health assessment (see the "Second-Stage Health Assessment within 7 Days" section above for details of this assessment).

Include the following in the care summary and post-release action plan for all people:

- Any significant health events that affected the person while they were in prison, for example:
  - New diagnoses
  - Hospital admissions
  - Instances of self-harm
- Any health or social care provided in prison
- Details of any ongoing health and social care needs, including:
  - Medicines they are taking
  - Mental health or substance misuse
- Future health and social care appointments, including appointments with:
  - Secondary and tertiary care
  - Mental health services
  - Substance misuse and recovery services
- Social services

Give the person a copy of the care summary and post-release plan.

Help people who are being released from prison to find and register with a community GP if they were not previously registered with one.

Before the person is released, liaise with services that will be providing care and support to them after they leave prison. This should include (as needed):

- Primary care
- Secondary and tertiary specialist services (for example, HIV, TB, oncology)
- Mental health or learning disability services
- Substance misuse services
- National Probation Service
- Community rehabilitation company (CRC)
- Social services
- Family or carers
- External agencies such as home care

Continuity of Medicines

Ensure the person can keep taking their medicines after coming into prison.

Give critical medicines in a timely way to prevent harm from missed or delayed doses. Use the examples of critical medicines in Table 2 in the original guideline document in conjunction with clinical judgement and any safety alerts.

Hold a one-to-one discussion with the person to agree a plan for how they will take their medicine after their release from prison. This should include education about taking prescribed medicines.

Consider carrying out a medicines review for people who are assessed as needing extra support to manage their medicines on release or transfer from prison. For example:

- People with TB, HIV, diabetes, substance misuse or mental health problems
- People with neurodevelopmental disorders or learning disabilities
- People receiving end of life care
- Older people
- People serving long-term sentences

When a person is discharged or transferred from prison, give them a minimum of 7 days' prescribed medicines or an FP10 prescription, based on a risk assessment.

Set up a process to ensure that people being discharged or transferred at short notice from prison are given a supply of their medicines or an FP10 prescription.

For recommendations on care for people moving from prison to another care setting, see the section on medicines-related communication systems

in NGC summary of the NICE guideline Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes.

Definitions

Strength of Recommendations

Some recommendations can be made with more certainty than others. The Guideline Development Group (GDG) makes a recommendation based on the trade-off between the benefits and harms of an intervention, taking into account the quality of the underpinning evidence. For some interventions, the GDG is confident that, given the information it has looked at, most patients would choose the intervention. The wording used in the recommendations in this guideline denotes the certainty with which the recommendation is made (the strength of the recommendation).

Recommendations That Must (or Must Not) Be Followed

The GDG usually uses 'must' or 'must not' only if there is a legal duty to apply the recommendation. Occasionally the GDG uses 'must' (or 'must not') if the consequences of not following the recommendation could be extremely serious or potentially life threatening.

Recommendations That Should (or Should Not) Be Followed – a 'Strong' Recommendation

The GDG uses 'offer' (and similar words such as 'refer' or 'advise') when confident that, for the vast majority of patients, an intervention will do more good than harm, and be cost effective. Similar forms of words (for example, 'Do not offer…') are used when the GDG is confident that an intervention will not be of benefit for most patients.

Recommendations That Could Be Followed

The GDG uses 'consider' when confident that an intervention will do more good than harm for most patients, and be cost effective, but other options may be similarly cost effective. The choice of intervention, and whether or not to have the intervention at all, is more likely to depend on the patient's values and preferences than for a strong recommendation, and so the healthcare professional should spend more time considering and discussing the options with the patient.

Clinical Algorithm(s)

The following algorithms are provided in the full version of the guideline (see the "Availability of the Companion Documents" field):

- Physical health of people in prison
- Reception assessment
- Access to medication
- Maintaining and promoting physical health in prison
- Continuity of care on release or transfer

In addition, a National Institute for Health and Care Excellence (NICE) pathway titled "Health of people in the criminal justice system overview" is available from the NICE Web site .

Scope

Disease/Condition(s)

Physical and mental health and wellbeing during incarceration

Guideline Category

Counseling

Diagnosis

Evaluation

Management

Risk Assessment

Screening

Clinical Specialty

Emergency Medicine

Family Practice

Internal Medicine

Preventive Medicine

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Health Care Providers

Nurses

Other

Patients

Pharmacists

Physician Assistants

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Public Health Departments

Social Workers

Substance Use Disorders Treatment Providers

Utilization Management

Guideline Objective(s)

- To provide recommendations on assessing, diagnosing and managing physical health problems of people in prison
- To improve health and wellbeing in the prison population by promoting more coordinated care and more effective approaches to prescribing, dispensing and supervising medicines

Target Population

Adults (18 years and older) in prisons and young people (aged 18-21 years) in young offender institutions

Note: The guideline does not cover the management of mental health of prisoners, National Health Service (NHS) care outside the prison service, end of life care, dental management or the cultural and spiritual needs of prisoners or their families and carers.

Interventions and Practices Considered

1. Assessing health
    - First-stage health assessment at reception into prison to assess:
        - Physical health
        - Alcohol use/substance misuse
        - Mental health
        - Self-harm and suicide risk
    - Advice about how to contact prison health services and book general practitioner (GP) appointments
    - Handling medical records
    - Medicines reconciliation
    - Tuberculosis (TB) screening
    - Second-stage health assessment
    - Using the Correctional Mental Health Screen for Men (CMHS-M) or Women (CMHS-W) to identify possible mental health problems
    - Offering people tailored health advice based on their responses to the assessment questions
    - General health checks and screening
    - Hepatitis B and C testing
    - Hepatitis B vaccination
    - Human immunodeficiency virus (HIV) testing
    - Risk assessment for sexually transmitted diseases (STDs)
2. Promoting health and wellbeing
    - Offering general health advice
    - Encouraging physical exercise
    - Offering advice about healthy diet
    - Offering advice about stopping smoking
    - Offer information about STDs and available sexual health services
    - Ensuring discreet access to condoms, dental dams and water-based lubricants
3. Managing medicines
    - Individual risk assessment to determine if the person can hold their medicines in-possession
    - Directly observing administration of schedule 2 and 3 medicines
    - Supporting medicines adherence
    - Providing storage for in-possession medicine
4. Monitoring chronic conditions
    - Monitoring chronic kidney disease
    - Monitoring epilepsies
    - Secondary prevention of myocardial infarction
    - Monitoring type 1 and type 2 diabetes
    - Monitoring chronic heart failure
    - Monitoring chronic obstructive pulmonary disease
    - Monitoring hypertension
    - Monitoring asthma
    - Monitoring hepatitis B (chronic)
    - Monitoring colorectal cancer
5. Managing deteriorating health and health emergencies
    - Ensuring that a local protocol is available for responding to and managing emergencies
    - Ensuring that prison and healthcare staff are made aware of people who have underlying chronic conditions and allergies
6. Continuity of healthcare
    - Arranging for medical records to be transferred from primary and secondary care to the prison healthcare team on entry to prison
    - Ensuring continuity of care between custodial settings
    - Carrying out a pre-release health assessment for people with complex needs
    - Ensuring continuity of all medicines on prison entry, transfer, and discharge

Major Outcomes Considered

- Morbidity
- Mortality
- Health-related quality of life
- Patient safety incidents
- Reduced self-harm
- Reduced hospital admission
- Delayed and omitted medicine
- Reduced infectious disease transmission
- Risk factors
- Referrals
- Self-reported satisfaction
- New diagnoses
- Diagnostic accuracy data
- Nutrition – healthy body mass index (BMI)
- Personal hygiene/self-care/oral health – patient-reported satisfaction
- Physical activity – healthy BMI, 30 minutes a day
- Sexual health – decrease in sexually transmitted disease (STD) diagnosis from in-prison, accessing barrier methods and sexual health clinics
- Smoking cessation (quitting for at least 4 weeks)
- Uptake of screening programmes
- Drug adherence
- Measures of drug diversion/trading (either from being bullied or selling medication)
- Overdose
- Adoption of health-promoting behaviours
- Cancelled hospital appointments
- Medication errors
- Adverse events
- Cost-effectiveness

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): The guideline was developed by the National Clinical Guideline Centre (NCGC) on behalf of the National Institute for Health and Care Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance and related appendices.

Developing the Review Questions and Outcomes

Review Questions

Review questions were developed using a PICO framework (patient, intervention, comparison and outcome) for intervention reviews; using a framework of population, index tests, reference standard and target condition for reviews of diagnostic test accuracy; and using population, presence or absence of factors under investigation (for example, prognostic factors) and outcomes for prognostic reviews.

For each review question a review protocol was developed. The review protocols then informed the literature search strategy for each review question.

A total of 17 review questions were identified. Full literature searches, critical appraisals and evidence reviews were completed for all the specified review questions (see Table 1 in the full version of the guideline).

Searching for Evidence

Clinical Literature Search

Systematic literature searches were undertaken to identify all published clinical evidence relevant to the review questions. Searches were undertaken according to the parameters stipulated within the NICE guidelines manual 2012 (see the "Availability of Companion Documents" field). Databases were searched using relevant medical subject headings, free-text terms and study-type filters where appropriate. Where possible, searches were restricted to papers published in English. Studies published in languages other than English were not reviewed. All searches were conducted in Medline, EMBASE, The Cochrane Library, PsycINFO, CINAHL and Social Policy & Practice. All searches were updated on 14 January 2016. A search was run in PubMed on 21 January 2016 to look for epub ahead of print papers not yet indexed in the other databases. No papers published after this date were considered.

Search strategies were quality assured by cross-checking reference lists of highly relevant papers, analysing search strategies in other systematic reviews, and asking Guideline Development Group (GDG) members to highlight any additional studies. Searches were quality assured by a second information scientist before being run. The questions, the study types applied, the databases searched and the years covered can be found in Appendix G.

The titles and abstracts of records retrieved by the searches were sifted for relevance, with potentially significant publications obtained in full text. These were assessed against the inclusion criteria.

During the scoping stage, a search was conducted for guidelines and reports on the websites listed below from organisations relevant to the topic.

- Guidelines International Network database (www.g-i-n.net)
- National Guideline Clearinghouse (NGC) (www.guideline.gov)
- National Institute for Health and Care Excellence (NICE) (www.nice.org.uk)
- National Institutes of Health Consensus Development Program (consensus.nih.gov)
- NHS Evidence Search (www.evidence.nhs.uk)

All references sent by stakeholders were considered. Searching for unpublished literature was not undertaken. The NCGC and NICE do not have access to drug manufacturers' unpublished clinical trial results, so the clinical evidence considered by the GDG for pharmaceutical interventions may be different from that considered by the Medicines and Healthcare products Regulatory Agency (MHRA) and European Medicines Agency for the purposes of licensing and safety regulation.

Call for Evidence

The GDG decided to initiate a 'call for evidence' for all areas identified in the scope as the GDG believed that important evidence existed that would not be identified by the standard searches. The NCGC contacted all registered stakeholders and asked them to submit any relevant published or unpublished evidence. See Appendix T for further details on evidence submitted during the call for evidence.

Health Economic Literature Search

Systematic literature searches were also undertaken to identify health economic evidence within published literature relevant to the review questions. The evidence was identified by conducting a broad search relating to prisons in the: NHS Economic Evaluation Database (NHS EED), the Health Technology Assessment database (HTA) and the Health Economic Evaluations Database (HEED) with no date restrictions (NHS EED ceased to be updated after March 2015; HEED was used for searches up to 5 December 2014 but subsequently ceased to be available). Additionally, the search was run on Medline and EMBASE using a health economic filter, from January 2014, to ensure recent publications that had not yet been indexed by the economic databases were identified. Where possible, searches were restricted to papers published in English. Studies published in languages other than English were not reviewed.

The health economic search strategies are included in Appendix G. All searches were updated on 14 January 2016. No papers published after this date were considered.

Identifying Evidence of Effectiveness

Research fellows conducted the tasks listed below, which are described in further detail in the rest of this section:

- Identified potentially relevant studies for each review question from the relevant search results by reviewing titles and abstracts. Full papers were then obtained.
- Reviewed full papers against pre-specified inclusion and exclusion criteria to identify studies that addressed the review question in the appropriate population, and reported on outcomes of interest (review protocols are included in Appendix C).

Inclusion and Exclusion Criteria

The inclusion and exclusion of studies was based on the criteria defined in the review protocols, which can be found in Appendix C. Excluded studies by review question (with the reasons for their exclusion) are listed in Appendix L. The GDG was consulted about any uncertainty regarding inclusion or exclusion.

The key population inclusion criterion was: adults (18 and older) in prisons or young offender institutions.

Conference abstracts were not automatically excluded from any review. The abstracts were initially assessed against the inclusion criteria for the review question and further processed when a full publication was not available for that review question. If the abstracts were included the authors were contacted for further information. No relevant conference abstracts were identified for this guideline. Literature reviews, posters, letters, editorials, comment articles, unpublished studies and studies not in English were excluded.

Type of Studies

Randomised trials, non-randomised trials, and observational studies (including diagnostic or prognostic studies) were included in the evidence reviews as appropriate.

For most intervention reviews in this guideline, parallel randomised controlled trials (RCTs) were included because they are considered the most robust type of study design that can produce an unbiased estimate of the intervention effects. If non-randomised studies were appropriate for inclusion (for example, non-drug trials with no randomised evidence) the GDG stated a priori in the protocol that either certain identified variables must be equivalent at baseline or else the analysis had to adjust for any baseline differences. If the study did not fulfil either criterion it was excluded. Please refer to the review protocols in Appendix C for full details on the study design of studies selected for each review question.

For diagnostic review questions, test-and-treat RCTs, cross-sectional studies and retrospective studies were included. For prognostic review questions, prospective and retrospective cohort studies were included. Case–control studies were not included.

Where data from observational studies were included, the results for each outcome were presented separately for each study and meta-analysis was not conducted.

Identifying Evidence of Cost-effectiveness

The GDG is required to make decisions based on the best available evidence of both clinical effectiveness and cost-effectiveness. Guideline recommendations should be based on the expected costs of the different options in relation to their expected health benefits (that is, their 'cost-effectiveness') rather than the total implementation cost. Thus, if the evidence suggests that a strategy provides significant health benefits at an acceptable cost per patient treated, it should be recommended even if it would be expensive to implement across the whole population.

Health economic evidence was sought relating to the key clinical issues being addressed in the guideline. Health economists:

- Undertook a systematic review of the published economic literature
- Undertook new cost-effectiveness analysis in priority areas

Literature Review

The health economists:

- Identified potentially relevant studies for each review question from the health economic search results by reviewing titles and abstracts. Full papers were then obtained
- Reviewed full papers against pre-specified inclusion and exclusion criteria to identify relevant studies (see below for details)

Inclusion and Exclusion Criteria

Full economic evaluations (studies comparing costs and health consequences of alternative courses of action: cost-utility, cost-effectiveness, cost-benefit and cost-consequences analyses) and comparative costing studies that addressed the review question in the relevant population were

considered potentially includable as health economic evidence.

Studies that only reported cost per hospital (not per patient), or only reported average cost-effectiveness without disaggregated costs and effects were excluded. Literature reviews, abstracts, posters, letters, editorials, comment articles, unpublished studies and studies not in English were excluded. Studies published before 1999 and studies from non-Organisation for Economic Co-operation and Development (OECD) countries or the USA were also excluded, on the basis that the applicability of such studies to the present UK NHS context is likely to be too low for them to be helpful for decision-making.

Remaining health economic studies were prioritised for inclusion based on their relative applicability to the development of this guideline and the study limitations. For example, if a high quality, directly applicable UK analysis was available, then other less relevant studies may not have been included. However, in this guideline, no economic studies were excluded on the basis that more applicable evidence was available.

When no relevant health economic studies were found from the economic literature review, relevant UK NHS unit costs related to the compared interventions were presented to the GDG to inform the possible economic implications of the recommendations.

Number of Source Documents

See Appendix E: Clinical Study Selection and Appendix F: Health Economic Study Selection in the full guideline appendices (see the "Availability of Companion Documents" field) for detailed information on results of literature searches and the number of included and excluded studies for each review question.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Overall Quality of Outcome Evidence in Grading of Recommendations Assessment, Development and Evaluation (GRADE)

Level	Description
High	Further research is very unlikely to change confidence in the estimate of effect.
Moderate	Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate.
Low	Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.
Very Low	Any estimate of effect is very uncertain.

Methods Used to Analyze the Evidence

Meta-Analysis

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Note from the National Guideline Clearinghouse (NGC): The guideline was developed by the National Clinical Guideline Centre (NCGC) on behalf of the National Institute for Health and Care Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance and related appendices.

Analysing Evidence of Effectiveness

Research fellows conducted the tasks listed below, which are described in further detail in the rest of this section:

- Critically appraised relevant studies using the appropriate study design checklist as specified in the NICE guidelines manual (see the "Availability of Companion Documents" field)
- Extracted key information about interventional study methods and results using 'Evibase', NCGC's purpose-built software. Evibase produces summary evidence tables, including critical appraisal ratings. Key information about non-interventional study methods and results was manually extracted onto standard evidence tables and critically appraised separately (evidence tables are included in Appendix H).
- Generated summaries of the evidence by outcome. Outcome data were combined, analysed and reported according to study design:
    - Randomised data were meta-analysed where appropriate and reported in Grading of Recommendations Assessment, Development and Evaluation (GRADE) profile tables
    - Observational data were presented as a range of values in GRADE profile tables or meta-analysed if appropriate
    - Diagnostic data studies were meta-analysed where appropriate or presented as a range of values in adapted GRADE profile tables
    - Qualitative data were summarised across studies where appropriate and reported by themes
- A sample of a minimum of 10% of the abstract lists were double-sifted by a senior research fellow and any discrepancies were rectified. All of the evidence reviews were quality assured by a senior research fellow. This included checking:
    - Papers were included or excluded appropriately
    - A sample of the data extractions
    - Correct methods were used to synthesise data
    - A sample of the risk of bias assessments

Methods of Combining Clinical Studies

Data Synthesis for Intervention Reviews

Where possible, meta-analyses were conducted using Cochrane Review Manager (RevMan5) software to combine the data given in all studies for each of the outcomes of interest for the review question.

All analyses were stratified for gender (male and female), which meant that different studies reporting males and females were not combined and analysed together.

Analysis of Different Types of Data

See Section 4.3.3.1.1 of the full version of the guideline for details regarding analysis of different types of data including dichotomous outcomes, continuous outcomes, generic inverse variance, and heterogeneity.

Data Synthesis for Diagnostic Test Accuracy Reviews

The protocol was produced to reflect the 2 different diagnostic study designs.

Test-and-treat randomized controlled trials (RCTs) (sometimes referred to as diagnostic RCTs) are a randomised comparison of 2 diagnostic tests, with study outcomes being clinically important consequences of the diagnosis (patient-related outcome measures similar to those in intervention trials, such as mortality). Patients are randomised to receive test A or test B, followed by identical therapeutic interventions based on the results of the test (so someone with a positive result would receive the same treatment regardless of whether they were diagnosed by test A or test B). Downstream patient outcomes are then compared between the 2 groups. As treatment is the same in both arms of the trial, any differences in patient outcomes will reflect the accuracy of the tests in correctly establishing who does and does not have the condition. Data were synthesised using the same methods for intervention reviews.

Diagnostic Accuracy Studies

Diagnostic test accuracy measures used in the analysis were: sensitivity and specificity for different thresholds (if appropriate). The threshold of a diagnostic test is defined as the value at which the test can best differentiate between those with and without the target condition. In practice this varies amongst studies. If a test has a high sensitivity then very few people with the condition will be missed (few false negatives). For example, a test with a sensitivity of 97% will only miss 3% of people with the condition. Conversely, if a test has a high specificity then few people without the condition would be incorrectly diagnosed (few false positives). For example, a test with a specificity of 97% will only incorrectly diagnose 3% of people who do not have the condition as positive. For this guideline, sensitivity was considered more important than specificity due to the consequences of a missed condition (false negative result). Coupled forest plots of sensitivity and specificity with their 95% confidence intervals (CIs) across studies (at various thresholds) were produced for each test, using RevMan5138. In order to do this, 2×2 tables (the number of true positives, false positives, true negatives and false negatives) were directly taken from the study if given, or else were derived from raw data or calculated from the set of test accuracy statistics.

Heterogeneity or inconsistency amongst studies was visually inspected.

Data Synthesis for Qualitative Study Reviews

For each included paper themes were identified and, where possible a meta-synthesis was conducted to combine qualitative study results. Broader generic themes were identified and subthemes were linked to these. In some cases, subthemes related to more than 1 generic theme. A summary evidence table of generic themes and underpinning subthemes was then produced; this included information on how many studies had contributed to an identified overarching theme, alongside the quality of the evidence. The themes and subthemes were them placed into a thematic map presenting the relationship between themes and subthemes. The included and excluded studies identified from the literature search and mapping of themes were drafted by 1 reviewer and quality assured by a senior research fellow.

Appraising the Quality of Evidence by Outcomes

Intervention Reviews

The evidence for outcomes from the included RCTs and, where appropriate, observational studies were evaluated and presented using an adaptation of the 'Grading of Recommendations Assessment Development and Evaluation' (GRADE) toolbox developed by the international GRADE working group. The software (GRADEpro) developed by the GRADE working group was used to assess the quality of each outcome, taking into account individual study quality and the meta-analysis results.

Each outcome was first examined for each of the quality elements listed and defined in Table 2 in the full version of the guideline. Details of how the 4 main quality elements (risk of bias, indirectness, inconsistency and imprecision) were appraised for each outcome are given in Sections 4.3.4.1.1 to 4.3.4.1.4 in the full version of the guideline. Publication or other bias was only taken into consideration in the quality assessment if it was apparent.

Overall Grading of the Quality of Clinical Evidence

Once an outcome had been appraised for the main quality elements, an overall quality grade was calculated for that outcome. The scores (0, −1 or −2) from each of the main quality elements were summed to give a score that could be anything from 0 (the best possible) to −8 (the worst possible). However scores were capped at −3. This final score was then applied to the starting grade that had originally been applied to the outcome by default, based on study design. All RCTs started as High and the overall quality became Moderate, Low or Very Low if the overall score was −1, −2 or −3 points respectively. The significance of these overall ratings is explained in the "Rating Scheme for the Strength of the Evidence" field. The reasons for downgrading in each case were specified in the footnotes of the GRADE tables.

Observational interventional studies started at Low, and so a score of −1 would be enough to take the grade to the lowest level of Very Low. Observational studies could, however, be upgraded if there were all of: a large magnitude of effect, a dose-response gradient, and if all plausible confounding would reduce the demonstrated effect.

See Section 4.3.4 in the full version of the guideline for information on quality assessment of diagnostic studies and qualitative reviews.

Assessing Clinical Importance

The Guideline Development Group (GDG) assessed the evidence by outcome in order to determine if there was, or potentially was, a clinically important benefit, a clinically important harm or no clinically important difference between interventions. To facilitate this, binary outcomes were converted into absolute risk differences (ARDs) using GRADEpro software: the median control group risk across studies was used to calculate the ARD and its 95% CI from the pooled risk ratio.

The assessment of clinical benefit, harm, or no benefit or harm was based on the point estimate of absolute effect for intervention studies, which was standardised across the reviews. The GDG considered for most of the outcomes in the intervention reviews that if at least 100 more participants per 1000 (10%) achieved the outcome of interest in the intervention group compared to the comparison group for a positive outcome then this intervention was considered beneficial. The same point estimate but in the opposite direction applied for a negative outcome. For the critical outcome of mortality any reduction represented a clinical benefit. For adverse events 50 events or more per 1000 (5%) represented clinical harm. For continuous outcomes if the mean difference was greater than the minimally important difference (MID) then this resented a clinical benefit or harm. For outcomes such as mortality any reduction or increase was considered to be clinically important.

This assessment was carried out by the GDG for each critical outcome, and an evidence summary table was produced to compile the GDG's assessments of clinical importance per outcome, alongside the evidence quality and the uncertainty in the effect estimate (imprecision).

Clinical Evidence Statements

Clinical evidence statements are summary statements that are included in each review chapter, and which summarise the key features of the clinical effectiveness evidence presented. The wording of the evidence statements reflects the certainty or uncertainty in the estimate of effect. The evidence statements are presented by outcome and encompass the following key features of the evidence:

- The number of studies and the number of participants for a particular outcome
- An indication of the direction of clinical importance (if one treatment is beneficial or harmful compared to the other, or whether there is no difference between the 2 tested treatments)
- A description of the overall quality of the evidence (GRADE overall quality)

Analysing Evidence of Cost-effectiveness

The GDG is required to make decisions based on the best available evidence of both clinical effectiveness and cost-effectiveness. Guideline recommendations should be based on the expected costs of the different options in relation to their expected health benefits (that is, their 'cost-effectiveness') rather than the total implementation cost. Thus, if the evidence suggests that a strategy provides significant health benefits at an acceptable cost per patient treated, it should be recommended even if it would be expensive to implement across the whole population.

Health economic evidence was sought relating to the key clinical issues being addressed in the guideline. Health economists:

- Undertook a systematic review of the published economic literature
- Undertook new cost-effectiveness analysis in priority areas

Literature Review

The health economists:

- Critically appraised relevant studies using economic evaluations checklists as specified in the NICE guidelines manual
- Extracted key information about the studies' methods and results into health economic evidence tables (included in Appendix I)
- Generated summaries of the evidence in NICE health economic evidence profile tables (included in the relevant chapter for each review question)

NICE Health Economic Evidence Profiles

NICE health economic evidence profile tables were used to summarise cost and cost-effectiveness estimates for the included health economic studies in each review chapter. The health economic evidence profile shows an assessment of applicability and methodological quality for each economic study, with footnotes indicating the reasons for the assessment. These assessments were made by the health economist using the economic evaluation checklist from the NICE guidelines manual. It also shows the incremental costs, incremental effects (for example, quality-adjusted life years [QALYs]) and incremental cost-effectiveness ratio (ICER) for the base case analysis in the study, as well as information about the assessment of uncertainty in the analysis. Refer to Table 7 in the full version of the guideline for more details.

When a non-UK study was included in the profile, the results were converted into pounds sterling using the appropriate purchasing power parity.

Undertaking New Health Economic Analysis

As well as reviewing the published health economic literature for each review question, new health economic analysis was undertaken by the health economist in selected areas. Priority areas for new analysis were agreed by the GDG after formation of the review questions and consideration of the existing health economic evidence.

The GDG identified the question of who should be conducting the health assessment at reception into prison as the highest priority area for original health economic modelling. This was due to the extra benefits and potential costs associated with a health assessment conducted by a nurse (instead of a healthcare assistant). The GDG also highlighted the significant economic impact of this decision especially when considering the number of people that annually go through the reception process (estimated around 75,000). A cost and threshold analysis was therefore undertaken to inform relevant recommendations.

The following general principles were adhered to in developing the cost-effectiveness analysis:

- Methods were consistent with the NICE reference case for interventions with health outcomes in National Health Service (NHS) settings.
- The GDG was involved in the design of the model, selection of inputs and interpretation of the results.
- Model inputs were based on the systematic review of the clinical literature supplemented with other published data sources where possible.
- When published data were not available GDG expert opinion was used to populate the model.
- Model inputs and assumptions were reported fully and transparently.

- The results were subject to sensitivity analysis and limitations were discussed.
- The model was peer-reviewed by another health economist at the NCGC.

Full methods for the cost threshold analysis are described in Appendix N.

Cost-effectiveness Criteria

NICE's report 'Social value judgements: principles for the development of NICE guidance' sets out the principles that GDGs should consider when judging whether an intervention offers good value for money. In general, an intervention was considered to be cost effective (given that the estimate was considered plausible) if either of the following criteria applied:

- The intervention dominated other relevant strategies (that is, it was both less costly in terms of resource use and more clinically effective compared with all the other relevant alternative strategies), or
- The intervention cost less than £20,000 per QALY gained compared with the next best strategy.

If the GDG recommended an intervention that was estimated to cost more than £20,000 per QALY gained, or did not recommend one that was estimated to cost less than £20,000 per QALY gained, the reasons for this decision are discussed explicitly in the 'Recommendations and link to evidence' section of the relevant chapter of the full version of the guideline, with reference to issues regarding the plausibility of the estimate or to the factors set out in 'Social value judgements: principles for the development of NICE guidance'.

When QALYs or life years gained are not used in the analysis, results are difficult to interpret unless one strategy dominates the others with respect to every relevant health outcome and cost.

In the Absence of Health Economic Evidence

When no relevant published health economic studies were found, and a new analysis was not prioritised, the GDG made a qualitative judgement about cost-effectiveness by considering expected differences in resource use between options and relevant UK NHS unit costs, alongside the results of the review of clinical effectiveness evidence.

The UK NHS costs reported in the guideline are those that were presented to the GDG and were correct at the time recommendations were drafted. They may have changed subsequently before the time of publication. However, there is no reason to believe they have changed substantially.

Methods Used to Formulate the Recommendations

Expert Consensus

Informal Consensus

Description of Methods Used to Formulate the Recommendations

Note from the National Guideline Clearinghouse (NGC): The guideline was developed by the National Clinical Guideline Centre (NCGC) on behalf of the National Institute for Health and Care Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance and related appendices.

Who Developed the Guideline?

A multidisciplinary Guideline Development Group (GDG) comprising health professionals and researchers as well as lay members developed this guideline. The GDG was convened by the National Clinical Guideline Centre (NCGC) in accordance with guidance from National Institute for Health and Care Excellence (NICE). The group met approximately every 4 weeks during the development of the guideline.

Staff from the NCGC provided methodological support and guidance for the development process. The team working on the guideline included a project manager, systematic reviewers (research fellows), health economists and information scientists. They undertook systematic searches of the literature, appraised the evidence, conducted meta-analysis and cost-effectiveness analysis where appropriate and drafted the guideline in collaboration with the GDG.

Developing Recommendations

Over the course of the guideline development process, the GDG was presented with:

- Evidence tables of the clinical and health economic evidence reviewed from the literature. All evidence tables are in Appendices H and I.
- Summaries of clinical and health economic evidence and quality (as presented in Chapters 5-11 in the full version of the guideline)
- Forest plots (see Appendix K)
- A description of the methods and results of the cost-effectiveness analysis undertaken for the guideline (see Appendix N)

Recommendations were drafted on the basis of the GDG's interpretation of the available evidence, taking into account the balance of benefits, harms and costs between different courses of action. This was either done formally in an economic model, or informally. Firstly, the net clinical benefit over harm (clinical effectiveness) was considered, focusing on the critical outcomes. When this was done informally, the GDG took into account the clinical benefits and harms when one intervention was compared with another. The assessment of net clinical benefit was moderated by the importance placed on the outcomes (the GDG's values and preferences), and the confidence the GDG had in the evidence (evidence quality). Secondly, the GDG assessed whether the net clinical benefit justified any differences in costs between the alternative interventions.

When clinical and health economic evidence was of poor quality, conflicting or absent, the GDG drafted recommendations based on its expert opinion. The considerations for making consensus-based recommendations include the balance between potential harms and benefits, the economic costs compared to the economic benefits, current practices, recommendations made in other relevant guidelines, patient preferences and equality issues. The consensus recommendations were agreed through discussions in the GDG. The GDG also considered whether the uncertainty was sufficient to justify delaying making a recommendation to await further research, taking into account the potential harm of failing to make a clear recommendation.

The GDG considered the appropriate 'strength' of each recommendation. This takes into account the quality of the evidence but is conceptually different. Some recommendations are 'strong' in that the GDG believes that the vast majority of healthcare and other professionals and patients would choose a particular intervention if they considered the evidence in the same way that the GDG has. This is generally the case if the benefits clearly outweigh the harms for most people and the intervention is likely to be cost-effective. However, there is often a closer balance between benefits and harms, and some patients would not choose an intervention whereas others would. This may happen, for example, if some patients are particularly averse to some side effect and others are not. In these circumstances the recommendation is generally weaker, although it may be possible to make stronger recommendations about specific groups of patients (see the "Rating Scheme for the Strength of the Recommendations" field).

The GDG focused on the following factors in agreeing the wording of the recommendations:

- The actions health professionals need to take
- The information readers need to know
- The strength of the recommendation (for example, the word 'offer' was used for strong recommendations and 'consider' for weaker recommendations)
- The involvement of patients (and their carers if needed) in decisions on treatment and care
- Consistency with NICE's standard advice on recommendations about drugs, waiting times and ineffective interventions

The main considerations specific to each recommendation are outlined in the 'Recommendations and link to evidence' sections within each chapter.

Cross Referring to Existing NICE Guidance

The GDG considered other published related NICE guidance to be relevant to a prison population and individual guidelines were reviewed for applicability and relevance, taking into consideration equity of care for people in prison. The GDG chose to cross-refer to the recommendation(s) in other published NICE guidance in accordance with the NICE guidelines manual. Cross reference to recommendations was as a result of 2 different approaches in reviewing the clinical evidence review:

- Monitoring chronic conditions. This review question set out to specifically look at existing NICE recommendations, as detailed in the review protocol. This approach was taken because there is existing NICE recommendations on monitoring people who have the conditions specified within the protocol. The GDG was presented with details about the evidence underpinning the recommendations within tables in the full guideline. This included assessing the evidence presented in the published NICE guideline, including evidence statements and full details of study design and quality.
- Other intervention reviews, for example, within the health promotion interventions reviews. Systematic reviews were conducted following the standard NICE methodology to identify evidence in a prison population and presented to the GDG. Little or no evidence was found for many of the reviews, however, the GDG highlighted that there was already NICE guidance issued on several of these topics, some of which were included a prison setting. Any related NICE guidance not specific to a prison population was assessed for applicability and relevance by the GDG and documented in sections labelled 'related NICE guidance', that include summary tables (a brief description of the

underpinning evidence and recommendations from other related published NICE guidelines).

In both situations the GDG formally determined and documented that:

- The review question in the guideline in development is similar to the question addressed in the published guideline.
- The evidence review underpinning any recommendations is not likely to have changed significantly since the publication of the related guideline.
- The evidence review for the review question in the published guideline is relevant and appropriate to the question in the guideline in development.

Published NICE guidelines that make direct recommendations for a prison population, and specifically include prisoners in their scope, were checked for applicability and relevance and cross referred to where relevant. Further discussion, including areas of agreement and difference, are detailed in the linking evidence to recommendation sections of the relevant recommendations in the full version of the guideline.

Rating Scheme for the Strength of the Recommendations

Strength of Recommendations

Some recommendations can be made with more certainty than others, depending on the quality of the underpinning evidence. The Guideline Development Group (GDG) makes a recommendation based on the trade-off between the benefits and harms of a system, process or an intervention, taking into account the quality of the underpinning evidence. The wording used in the recommendations in this guideline denotes the certainty with which the recommendation is made (the strength of the recommendation).

Interventions That Must (or Must Not) Be Used

The GDG usually uses 'must' or 'must not' only if there is a legal duty to apply the recommendation. Occasionally the GDG uses 'must' (or 'must not') if the consequences of not following the recommendation could be extremely serious or potentially life threatening.

Interventions That Should (or Should Not) Be Used – a 'Strong' Recommendation

The GDG uses 'offer' (and similar words such as 'refer' or 'advise') when confident that, for the vast majority of people, a system, process or an intervention will do more good than harm, and be cost effective. Similar forms of words (for example, 'Do not offer…') are used when the GDG is confident that an intervention will not be of benefit for most people.

Interventions That Could Be Used

The GDG uses 'consider' when confident that a system, process or an intervention will do more good than harm for most people, and be cost effective, but other options may be similarly cost effective. The choice of intervention, and whether or not to have the intervention at all, is more likely to depend on the person's values and preferences than for a strong recommendation, and so the healthcare professional should spend more time considering and discussing the options with the person.

Cost Analysis

See the "Economic Evidence" sections in the full version of the guideline (see the "Availability of Companion Documents" field) for specific cost-effectiveness considerations for each guideline review question.

Cost Analysis: First-Stage Health Assessment

In the absence of existing cost-effectiveness evidence, original analysis was conducted to examine whether it could be cost effective to recommend that the first stage of the health assessment, immediately following reception, should be conducted by a registered nurse, compared to recommending that the assessment should be conducted by a healthcare assistant (HCA).

The analysis focused on conditions with high prevalence in prisons, which it was considered could be missed at a health assessment, and which could give rise to serious health events during the first week in prison if the condition was not identified.

The Guideline Development Group (GDG) agreed that the physical conditions of most interest were asthma, angina and epilepsy. The GDG also requested that mental health conditions also be considered. Following discussion with representatives of the GDG for the National Institute for Health and Care Excellence (NICE) guideline on Mental health in the criminal justice system, it was agreed that suicides within the first week after

reception should also be included.

Conclusion

Overall, there was an absence of published evidence relevant to a prisons population that could be used in the present analysis. Therefore, many of the input data used were sourced from a non-prison setting. In addition, due to the lack of data on the effectiveness difference between nurses and healthcare assistants the analysis assumes that nurses are 100% capable of identifying any underlying health conditions while healthcare assistants identify none of these. Therefore the results need to be interpreted cautiously as they reflect an upper bound on the potential benefit of nurses, not a realistic consideration of the incremental impact of nurses above that of HCAs.

Even under such underlying assumptions, only 1 of the 3 base case combined scenarios gave an incremental cost-effectiveness ration (ICER) under the £20,000 per quality-adjusted life year (QALY) gained scenario. This specific scenario assumed that 30% of suicides during the first week after reception are preventable, a parameter that was also very uncertain.

Therefore, a stipulation that the first stage of the health assessment must be conducted by nurses cannot be supported on the basis of this analysis alone. The GDG has instead recommended that the staffing of the first stage of health assessment must be determined locally. The GDG has considered that there are a variety of additional factors, not included in this analysis, which providers will need to consider in planning the staffing of first-stage assessments, some of which may make the use of nurses cost effective and practical in particular local circumstances.

Refer to Appendix N in the full version of the guideline for details of this cost analysis.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Validation Process

This guidance is subject to a 6-week public consultation and feedback as part of the quality assurance and peer review of the document. All comments received from registered stakeholders are responded to in turn and posted on the National Institute for Health and Care Excellence (NICE) Web site.

Focus Groups

Prison organisations are registered as stakeholders and invited to comment on the guideline during the consultation phase of development. Serving prisoners however, were identified as a group who would not have an opportunity to comment directly on the draft guideline. User organisations as identified by the NICE Patient and Public Involvement Programme and the Guideline Development Group (GDG) were invited to submit a proposal to conduct focus groups on behalf of the GDG to obtain feedback on the draft recommendations from people currently serving a prison sentence. User Voice were selected to conduct this work.

The remit for the focus groups was to include people with disabilities (including physical and learning disabilities), women, older prisoners, long and short term prisoners, and those with a history of substance misuse. These groups had been identified for special consideration within the guideline scope. The focus groups would also include participants from different category prisons in a range of different geographical areas. Prisoners views will be gathered though facilitated group discussion and summarised into a report to be considered by the GDG along with other comments received though the stakeholder consultation process.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting each recommendation is not specifically stated.

See the "Types of Studies" section in the "Description of Methods Used to Collect/Select the Evidence" field for information on the type of studies used to formulate the recommendations.

Also refer to "Evidence Statements" sections in the full version of the guideline for discussion of the evidence supporting each review question.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Health assessment enables long-term conditions, sexual health, vaccinations, substance misuse, mental health and many more health needs to be identified. It also gives the opportunity for patients to be offered health promotion advice.
- Effective multidisciplinary working between prison staff and health professionals is essential to ensure that appropriate information is shared in a timely manner between teams. Delivering coordinated services in prisons by focusing on intra-agency communication is an important area to improve health outcomes for prisoners and ensuring efficient access to the health care system and other needed supports.
- The benefits of physical activity on physical health were limited within the evidence identified from this review, including uncertain reductions in body mass index (BMI) and blood pressure due to wide confidence intervals. The GDG expected wider health gains, and also noted other benefits linked to mood, anxiety, depression and stress, which are outside the scope of this guideline.

Refer to the "Trade-off between benefits and harms" sections in the full version of the guideline (see the "Availability of Companion Documents" field) for details about benefits of specific assessments and interventions.

Potential Harms

- When considering whether or not to recommend a case identification tool, the Guideline Development Group (GDG) was mindful of the benefits associated with the identification of mental health problems in the prison population (which are known to be significantly higher than in the general population) but also considered the potential harm or inappropriate use of resources that may arise from false positives. For this reason, the GDG was careful to evaluate both the sensitivity and specificity of the measures reviewed.
- The GDG discussed any potential harms of the interventions (nicotine replacement therapy [NRT, nicotine patches], information provision/cognitive behaviour therapy/mood management and antidepressants such as nortriptyline). The evidence did not report any adverse effects; however, the GDG acknowledged many potential side effects of anti-depressants. Potential harms for NRT were not identified in the review, but were thought to be minimal. The GDG noted that any prescribed medication would be monitored and regularly reviewed by the prescribing general practitioner and any adverse effects managed.
- Harms of physical exercise were not identified in the review, but may include injury from inappropriate exercise or over exertion.
- Ribavirin and pegylated interferon alpha-2a (used in treatment of hepatitis C) are associated with mild adverse events (anaemia, thrombocytopenia, neutropenia, leucopenia) at 48 weeks.
- The potential harms of holding medicines in-possession include poor adherence, overdose and the diversion or trading of drugs. The GDG noted the potential harms of being in-possession of controlled drugs on release from prison were similar to the harms in prison, such as potential drug abuse and diversion.

Refer to the "Trade-off between benefits and harms" sections in the full version of the guideline (see the "Availability of Companion Documents" field) for details about potential harms of specific interventions.

Qualifying Statements

Qualifying Statements

- The recommendations in this guideline represent the view of the National Institute for Health and Care Excellence (NICE), arrived at after careful consideration of the evidence available. When exercising their judgement, professionals are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or service users. The application of the recommendations in this guideline is not mandatory and the guideline does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

- Local commissioners and/or providers have a responsibility to enable the guideline to be applied when individual health professionals and their patients or service users wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with compliance with those duties.
- The National Clinical Guideline Centre (NCGC) disclaims any responsibility for damages arising out of the use or non-use of this guideline and the literature used in support of this guideline.

Implementation of the Guideline

Description of Implementation Strategy

Putting This Guideline into Practice

The National Institute for Health and Care Excellence (NICE) has produced tools and resources to help you put this guideline into practice.

Putting recommendations into practice can take time. How long may vary from guideline to guideline, and depends on how much change in practice or services is needed. Implementing change is most effective when aligned with local priorities.

Changes recommended for clinical practice that can be done quickly – like changes in prescribing practice – should be shared quickly. This is because healthcare professionals should use guidelines to guide their work – as is required by professional regulating bodies such as the General Medical and Nursing and Midwifery Councils.

Changes should be implemented as soon as possible, unless there is a good reason for not doing so (for example, if it would be better value for money if a package of recommendations were all implemented at once).

Different organisations may need different approaches to implementation, depending on their size and function. Sometimes individual practitioners may be able to respond to recommendations to improve their practice more quickly than large organisations.

Here are some pointers to help organisations put NICE guidelines into practice:

1. Raise awareness through routine communication channels, such as email or newsletters, regular meetings, internal staff briefings and other communications with all relevant partner organisations. Identify things staff can include in their own practice straight away.
2. Identify a lead with an interest in the topic to champion the guideline and motivate others to support its use and make service changes, and to find out any significant issues locally.
3. Carry out a baseline assessment against the recommendations to find out whether there are gaps in current service provision.
4. Think about what data you need to measure improvement and plan how you will collect it. You may want to work with other health and social care organisations and specialist groups to compare current practice with the recommendations. This may also help identify local issues that will slow or prevent implementation.
5. Develop an action plan, with the steps needed to put the guideline into practice, and make sure it is ready as soon as possible. Big, complex changes may take longer to implement, but some may be quick and easy to do. An action plan will help in both cases.
6. For very big changes include milestones and a business case, which will set out additional costs, savings and possible areas for disinvestment. A small project group could develop the action plan. The group might include the guideline champion, a senior organisational sponsor, staff involved in the associated services, finance and information professionals.
7. Implement the action plan with oversight from the lead and the project group. Big projects may also need project management support.
8. Review and monitor how well the guideline is being implemented through the project group. Share progress with those involved in making improvements, as well as relevant boards and local partners.

NICE provides a comprehensive programme of support and resources to maximise uptake and use of evidence and guidance. See the into practice pages for more information.

Also see Leng G, Moore V, Abraham S, editors (2014) Achieving high quality care – practical experience from NICE. Chichester: Wiley.

Implementation Tools

Clinical Algorithm

Mobile Device Resources

Patient Resources

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Safety

Identifying Information and Availability

Bibliographic Source(s)

National Guideline Centre. Physical health of people in prison. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov 2. 36 p. (NICE guideline; no. 57).

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2016 Nov 2

Guideline Developer(s)

National Guideline Centre - National Government Agency [Non-U.S.]

Source(s) of Funding

The National Clinical Guideline Centre was commissioned by the National Institute for Health and Care Excellence to undertake the work on this guideline.

Guideline Committee

Guideline Development Group (GDG)

Composition of Group That Authored the Guideline

Guideline Development Group (GDG) Members: Ian Bickers, Governor, HMP Wandsworth; Richard Bradshaw (*Guideline Chair*); Francesca Cooney, Lay member; Jane de Burgh, Senior Health Protection Specialist, Public Health England; Denise Farmer, Pharmaceutical Adviser, Health and Justice Commissioning NHS England (Central and East Teams); Laimonas Goncaras, Deputy Medical Director, The Medical Centre Group, West Kent Prisons & Medway Prisons; Jake Hard, GP, South Gloucester Prison Cluster; Sophie Strachan, Lay member; Nina Turner, Rochester Prison Clinical Nurse Manager for Oxleas NHS Trust; Elisabeth Walsh, Independent Health in Justice Consultant

Financial Disclosures/Conflicts of Interest

At the start of the guideline development process all Guideline Development Group (GDG) members declared interests including consultancies, fee-paid work, shareholdings, fellowships and support from the healthcare industry. At all subsequent GDG meetings, members declared arising conflicts of interest.

Members were either required to withdraw completely or for part of the discussion if their declared interest made it appropriate. The details of declared interests and the actions taken are shown in Appendix B in the full guideline appendices (see the "Availability of Companion Documents" field).

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the National Institute for Health and Care Excellence (NICE) Web site . Also available for download in ePub or eBook formats from the NICE Web site .

Availability of Companion Documents

The following are available:

- Physical health of people in prison. Full guideline. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov. 357 p. (NICE guideline; no. 57). Available from the National Institute for Health and Care Excellence (NICE) Web site .
- Physical health of people in prison. Appendices. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov. (NICE guideline; no. 57). Available from the NICE Web site .
- Physical health of people in prison. Baseline assessment tool. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov. (NICE guideline; no. 57). Available from the NICE Web site .
- Physical health of people in prison. Resource impact report. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov. 11 p. (NICE guideline; no. 57). Available from the NICE Web site .

- Physical health of people in prison. Resource impact template. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov. (NICE guideline; no. 57). Available from the NICE Web site .
- The guidelines manual 2012. London (UK): National Institute for Health and Care Excellence (NICE); 2012 Nov. Available from the NICE Web site .
- Developing NICE guidelines: the manual 2014. London (UK): National Institute for Health and Care Excellence; 2014 Oct. Available from the NICE Web site .

Patient Resources

The following is available:

- Physical health of people in prison. Information for the public. London (UK): National Institute for Health and Care Excellence (NICE); 2016 Nov. 5 p. Available from the National Institute for Health and Care Excellence (NICE) Web site . Also available for download in ePub, eBook, EasyRead Web-optimised, and print ready formats from the NICE Web site .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of National Guideline Clearinghouse (NGC) to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

This NGC summary was completed by ECRI Institute on February 16, 2017.

The National Institute for Health and Care Excellence (NICE) has granted the National Guideline Clearinghouse (NGC) permission to include summaries of their clinical guidelines with the intention of disseminating and facilitating the implementation of that guidance. NICE has not yet verified this content to confirm that it accurately reflects that original NICE guidance and therefore no guarantees are given by NICE in this regard. All NICE clinical guidelines are prepared in relation to the National Health Service in England and Wales. NICE has not been involved in the development or adaptation of NICE guidance for use in any other country. The full versions of all NICE guidance can be found at www.nice.org.uk .

Copyright Statement

Disclaimer

NGC Disclaimer

The National Guideline Clearinghouseâ„¢ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria.

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.